DOCUMENT RESUME

ED 360 247 SO 023 324

AUTHOR May, Wanda T.
TITLE A Summary of the Findings in Art and Music: Research Traditions and Implications for Teacher Education. Elementary Subjects Center Series No. 88.
INSTITUTION Center for the Learning and Teaching of Elementary Subjects, East Lansing, MI.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE Mar 93
CONTRACT G0087C0226
NOTE 84p.
AVAILABLE FROM Center for the Learning and Teaching of Elementary Subjects, Institute for Research on Teaching, 252 Erickson Hall, Michigan State University, East Lansing, MI 48824-1034 ($7).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Aesthetic Education; *Art Education; *Art Teachers; *Curriculum Development; *Curriculum Evaluation; Educational Research; Elementary Education; *Music Education; Music Teachers; Teacher Education
IDENTIFIERS Discipline Based Art Education

ABSTRACT

This report focuses on the implications of eight Center for the Learning and Teaching of Elementary Subjects studies in elementary art and music education and synthesized existing research with respect to teacher education in art and music education. The first section provides a summary of the major findings in each of the Center studies in art and music conducted over a 5-year period. Of particular interest to researchers was the improvement of teaching these subjects to enhance students' depth of understanding and meaningful applications in everyday life. The second section presents a synthesis and comparative review of the research literature in art and music teacher education in light of these findings. The literature review addressed several perennial and contemporary issues in arts education at the elementary level. The interests and goals of art and music education were mapped onto the larger historical context of U.S. curriculum and the multiple, competing goals for education. Little attention has been given to how to teach these disciplinary areas beyond art production or musical performance and what kind of knowledge, experience, preparation, and support teachers need in order to implement such a reform in K-12 practice. The third section examines research trends and current interests in general teacher education. Concerns such as contextual constraints in teacher education reform, teachers' subject matter knowledge, conceptual orientations to teacher education programs, and change strategies are used as a template to identify similarities, omissions, and promising directions in research and program development for art and music teacher education. (DK)

ED360247

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A SUMMARY OF THE FINDINGS IN ART AND MUSIC: RESEARCH TRADITIONS AND IMPLICATIONS FOR TEACHER EDUCATION

Wanda T. May

Center for the Learning and Teaching of Elementary Subjects

Institute for Research on Teaching
College of Education
Michigan State University

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Wanda T. May

Published by

The Center for the Learning and Teaching of Elementary Subjects
Institute for Research on Teaching
252 Erickson Hall
Michigan State University
East Lansing, Michigan 48824-1034

March 1993

This work is sponsored in part by the Center for the Learning and Teaching of Elementary Subjects, Institute for Research on Teaching, Michigan State University. The Center for the Learning and Teaching of Elementary Subjects is funded primarily by the Office of Educational Research and Improvement, U.S. Department of Education. The opinions expressed in this publication do not necessarily reflect the position, policy, or endorsement of the Office or Department (Cooperative Agreement No. G0087C0226).

Center for the Learning and Teaching of Elementary Subjects

The **Center for the Learning and Teaching of Elementary Subjects** was awarded to Michigan State University in 1987 after a nationwide competition. Funded by the Office of Educational Research and Improvement, U.S. Department of Education, the Elementary Subjects Center is a major project housed in the Institute for Research on Teaching (IRT). The program focuses on conceptual understanding, higher order thinking, and problem solving in elementary school teaching of mathematics, science, social studies, literature, and the arts. Center researchers are identifying exemplary curriculum, instruction, and evaluation practices in the teaching of these school subjects; studying these practices to build new hypotheses about how the effectiveness of elementary schools can be improved; testing these hypotheses through school-based research; and making specific recommendations for the improvement of school policies, instructional materials, assessment procedures, and teaching practices. Research questions include, What content should be taught when teaching these subjects for understanding and use of knowledge? How do teachers concentrate their teaching to use their limited resources best? and In what ways is good teaching subject matter-specific?

The work is designed to unfold in three phases, beginning with literature review and interview studies designed to elicit and synthesize the points of view of various stakeholders (representatives of the underlying academic disciplines, intellectual leaders and organizations concerned with curriculum and instruction in school subjects, classroom teachers, state- and district-level policymakers) concerning ideal curriculum, instruction, and evaluation practices in these five content areas at the elementary level. Phase II involves interview and observation methods designed to describe current practice, and in particular, best practice as observed in the classrooms of teachers believed to be outstanding. Phase II also involves analysis of curricula (both widely used curriculum series and distinctive curricula developed with special emphasis on conceptual understanding and higher order applications), as another approach to gathering information about current practices. In Phase III, models of ideal practice will be developed, based on what has been learned and synthesized from the first two phases, and will be tested through classroom intervention studies.

The findings of Center research are published by the IRT in the Elementary Subjects Center Series. Information about the Center is included in the IRT Communication Quarterly (a newsletter for practitioners) and in lists and catalogs of IRT publications. For more information, to receive a list or catalog, or to be placed on the IRT mailing list to receive the newsletter, please write to the Editor, Institute for Research on Teaching, 252 Erickson Hall, Michigan State University, East Lansing, Michigan 48824-1034.

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Abstract

This report focuses on the implications of eight Center studies in elementary art and music education and synthesizes existing research with respect to teacher education in art and music education.

The first section provides a summary of the major findings in each of the Center studies in art and music conducted over a five-year period. The second section presents a synthesis and comparative review of the research literature in art and music teacher education in light of these findings. The third section examines research trends and current interests in general teacher education. Concerns such as contextual constraints in teacher education reform, teachers' subject matter knowledge, conceptual orientations to teacher education programs, and change strategies are used as a template to identify similarities, omissions, and promising directions in research and program development for art and music teacher education.

A SUMMARY OF THE FINDINGS IN ART AND MUSIC: RESEARCH TRADITIONS AND IMPLICATIONS FOR TEACHER EDUCATION

Wanda T. May[1]

This is the final technical report of nine published in elementary art and music by the Center for the Learning and Teaching of Elementary Subjects in its five-year program of research. The Center has examined elementary-level teaching and learning in the arts, mathematics, science, social studies, and literature. Of particular interest to researchers is the improvement of teaching these subjects to enhance students' depth of understanding and meaningful applications in everyday life. All previous reports focused on curriculum, teaching, learning, and evaluation in K-6 settings. This report focuses on the implications of these studies for future research in art/music teacher education.

The first section of this report provides a summary of the major findings in each of the Center studies in art and music. The second section presents a synthesis and review of research in art and music teacher education, for example, research concerned with program designs and outcomes, university practice, or the kinds of knowledge, skills, and dispositions that teachers bring to these programs and/or develop as a result of engaging in these programs with respect to art/music teaching and learning in elementary schools. The third section examines current interests and recent research in general teacher education as a template to identify overlapping issues and gaps in the lines of inquiry and research traditions identified in art and music teacher education. This section also discusses different conceptual orientations to teacher education and potential directions for art and music teacher education, given this review.

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A Review of the Findings of the Center Studies in Art/Music

A list of the titles of the art/music studies that will be discussed in this section, in the order of their presentation, is as follows:

Understanding and Critical Thinking in Elementary Art and Music (May, 1989b)
Music Experts' Views of an Ideal Curriculum (May, 1990b)
Art Experts' Views of an Ideal Curriculum (May, 1993a)
What in the World is Music in World of Music? A Critique of a Commonly Used Textbook Series (May, 1993d)
Making Art at a Glance: A Critique of Discover Art (May, 1993b)
Whose Content, Context, and Culture in Elementary Art and Music Textbooks? (May, Lantz, & Rohr, 1990)
Art/Music Teachers' Curriculum Deliberations (May, 1990a)
Good Teachers Making the Best of It: Cases of Art and Music Teaching (May, in press)

The studies are presented in the order of the Center's research program or time-line, which was chunked into Phase I, Phase II, and Phase III over a five-year period. Phase I Center studies encompassed extensive literature reviews, surveys, and interviews of expert opinions. Phase II studies described current practice, including analyses of state- and district-level policies and curriculum guides, analyses of commercial curriculum materials or textbook series, and analyses of enacted curricula observed in selected classrooms of exemplary teachers teaching the various elementary subjects. Phase III studies focused on improvement-oriented research and/or syntheses of findings from earlier work.

Literature Review in Elementary Art and Music

The extensive literature review conducted during Phase I, *Understanding and Critical Thinking in Elementary Art and Music* (May, 1989b), addressed several perennial and contemporary issues in arts education at the elementary level. This study generated a reliable social, historical, and theoretical context from which to frame the foci and problems of interest unique to the arts in subsequent studies. For example, the interests and goals of art and music

education were mapped onto the larger historical context of American curriculum and multiple, competing goals for education. The study helped to anchor and trace contemporary goals in art and music education. Despite the long lists of diverse goals generated by each field, the most pronounced interest in the past 10 years in visual arts has been in subject matter or disciplinary knowledge; in music, it has been performance and isolated skills. Neither field currently emphasizes creativity, nor have many art and music educators attended to critical thinking or constructivist teaching/learning as defined by the Center.

Given curriculum reform over the past 10 years in art education, there was considerable literature on what counts as art knowledge: production, art history, aesthetics, and art criticism. This reform is known as discipline-based art education or DBAE, and many arts educators, even in music, have adopted this disciplinary stance toward what should be taught in the arts. Little attention, however, has been given to how to *teach* these disciplinary areas beyond art production or musical performance and what kind of knowledge, experience, preparation, and support teachers need in order to implement such a reform in K-12 practice. These emphases and omissions were confirmed in subsequent Center studies, for example, experts' views of ideal curricula, textbook analyses, case studies of expert practice, and the extensive literature review contained in this report that relates specifically to arts teacher education and preparation.

The literature review in Phase I also examined paradoxes related to child development in art education. Much of the research in this area is based on students' production, performance, and skills, not on developmentally appropriate content or activities related to developing understanding in history, criticism, or aesthetics in the arts. Whereas experts in cognitive psychology rely less on strict developmental theory or rigid age-level schemes in terms of

developing students' critical thinking and meaningful learning in subject-area contexts, experts in the arts (in subsequent Center studies, particularly the teachers) were still found to rely heavily on developmental assumptions, as did textbook authors in the arts. Some of these experts seriously underestimated what youngsters are capable of learning and doing in the primary grades in art and music. Arts educators have paid little attention to assessing students' prior knowledge in strategic ways (beyond making assumptions about what students have or have not experienced or skill level) or developing students' metacognitive strategies by scaffolding instruction or discourse in explicit, thoughtful ways.

In the literature review in Phase I, I also raised questions as to how art and music could be taught in meaningful ways with such limited time allocated to the arts in the school curriculum and such lengthy gaps between instructional episodes or lessons. Finally, I raised questions about what might be required in teacher preparation and staff development in order to help teachers experience the arts differently as learners themselves in order to better understand central concepts and methods that would promote creative/critical thinking in nonperformance and nonstudio areas of music and art. I suggested that the Lincoln Center Institute for the Performing Arts in New York (May, 1978) might be a promising model, either for initial teacher preparation and/or the continuing education or staff development of experienced teachers, whether or not teachers are arts specialists, elementary generalists, or specialize in other subject areas. This model treats adults as *learners* first, immersing teachers actively in art forms and intensive arts experiences with arts experts before ever making any explicit connections to pedagogy.

Studies of Experts' Opinions and Curriculum Exercises

During Phase I, two other studies were conducted. These studies examined experts' views of an "ideal" curriculum. One report was *Music Experts' Views of an Ideal Curriculum* (May, 1990b) and the other, *Art Experts' Views of an Ideal Curriculum* (May, 1993a). In the music expert study, three university professors and three music specialist-teachers engaged in both parts of the study. Both sets of panelists not only responded to the ideal features and goals exercise generated by Center researchers; they also critiqued a commonly used music textbook series and participated in on-campus interviews with respect to both phases of this study. In the art expert study, two university professors and three art specialist-teachers participated. Because art textbooks are not widely used at the elementary level, neither group of art panelists participated in Part 2 of the study nor were they interviewed on campus. However, both art and music specialists generated detailed, thoughtful analyses and sample lesson plans, and several of the university experts submitted published articles to elaborate on their ideas. Thus, rich data were collected for microanalysis and comparative analysis.

Several salient findings with respect to curriculum, teaching, learning, and evaluation were generated from the two studies of art and music experts. First, there were interesting similarities and differences across the fields of art and music as well as within and across the expert groups in terms of their being professors or teachers. Most of the experts agreed with the five key features of an ideal curriculum generated by the Center, particularly those features related to balancing depth with breadth, making connections, and providing opportunities for students to actively process information and construct meaning.

Issues concerning the selection and organization of key ideas was problematic for several of the experts because of the nondiscursive features of both

art and music. They insisted that art and music do not possess the same kind of logic, language, nor linear analysis as some other subjects may, but then most experts were unable to suggest how to select and organize these features, except in terms of repeated exposure to authentic, representative, multiple artworks and musical selections over time, emphasizing different concepts at different times. Art and music forms were considered to be so complex, dense, or thickly textured that these objects could be studied repeatedly and in a variety of ways. Further, an understanding of the nondiscursive and connotative features of art and music was illustrated in experts' stating that students' understanding in art and music also is demonstrated nondiscursively and in complex ways. Thus, relying solely on what students can say verbally or write to demonstrate their understanding is not the most appropriate way to assess students' understanding or creative/ critical thinking in art and music. One must look at students' musical responses and performance or art produced.

One missing feature mentioned by several of the experts, professors and teachers alike, was motivation and the teacher's important role in helping students develop positive dispositions toward art and music and their learning over time. The teachers, however, were more apt to mention the teacher's role and mediation of the curriculum than were university experts. Most of the university experts spoke of key features in the abstract; teachers, spoke of these in the concrete. In particular, the teachers stressed the importance of social context in teaching/learning as well as persistent constraints such as limited time, resources, large student-teacher ratios, and the difficulty in selecting and organizing what should or can be taught, given these constraints as well as the the complex subjects they teach.

Teacher experts also were more concerned about "real-life" applications and student relevance than were most university experts. Teachers were more

responsive to art/music forms in popular culture and contemporary life to make connections, but teacher experts were just as adamant as university experts about students needing to encounter authentic, diverse exemplars of art and music, and not artificial pedagogical pieces designed to teach isolated concepts or skills. In music, there was particular interest in "real" music, not vapid instructional pieces written by textbook authors or others to teach an isolated concept or skill. Teachers also were more inclined to see and seek connections across subject areas and illustrated their attempts to integrate art and music with other subject areas to help students see connections and apply their knowledge in a variety of contexts. University experts were more inclined to maintain a "purist" stance with respect to their disciplines.

Three university and teacher experts across art and music were somewhat critical of most of the key features presented, particularly the Center's use of terms such as "ideal," "powerful ideas," "processing information," and so forth. These experts reflected a more experientialist and developmentalist theoretical orientation than did the other experts or the orientation that Center researchers projected. These university experts, as well as most of the teacher experts, mentioned the contingencies and responsiveness to students required in teaching. However, the teachers were more inclined to mention these complex dimensions of teaching and almost uniformly, as a group, paid close attention to student diversity or mentioned this several times. University experts were not as inclined to attend to student diversity, if at all. They tended to view students more universally and abstractly.

In terms of content, music professors spent considerable time trying to clarify the nature, substance, and structure of their subject (e.g., "music is thinking *in* sounds" which occurs in interaction with a musical style and community). Across both university and teacher music experts, content could

mean the musical literature used, pedagogical materials, students' compositions, or musical elements and the analysis of such (e.g., pitch, rhythm, or melody). Most of the art experts, however, had clearer notions about the disciplinary content of visual arts, perhaps influenced by the national DBAE movement. All art experts attempted to include something of art history, aesthetics, criticism, or art in social context in proposed studio activities.

The music experts were less apt to attend to *why* people engage in music in social, cultural, and historical contexts. Most focused more on *what* students should attend to in a musical selection and *how*. The communicative, expressive features of music were all but ignored by most of the university music experts. Nonperformance areas were to be learned unproblematically by students from the study of multiple musical exemplars and their parts; repeated exposure to musical literature; and by active, reproductive engagement in musical performance. In sum, more art experts than music experts were inclined to help students understand the arts in social, cultural, even political contexts.

Several of the music experts were more inclined than art experts to see elements (pitch, rhythm, melody; line, shape, color) as building blocks to understanding music. Exactly how these elements are related or should be presented over time to students seemed to confound most of the music experts. There was little agreement about this except that music was seen to have simultaneous and temporal qualities, to be very complex, and one should select music exemplars based on what in/about the music one wishes to feature or teach, and whatever this is, it should be very obvious to students. Thus, one organizational approach by music experts was to present multiple exemplars over time in an obvious-to-subtle sequence.

The art experts, however, used a more complex, comparative context. They tended to select two or three exemplary works or images for any given lesson that

demonstrated the same big idea or similar features for comparison and contrast. They also were more apt than music experts to speak about expressive intent, aesthetic response, and effects. They did not save the study of meanings, interpretation, or art criticism for the upper elementary grades. Music experts tended to focus on one musical selection in a given setting for students' analysis and then reanalysis with multiple listenings at subsequent dates or in review. New works also would be introduced at different times that would feature the same concepts. In some ways, this approach was very interesting coming from music experts, much like a "theme and variations" stretched over a long period of time. Two of the music experts were more apt to teach multiple concepts as interrelated in any given piece or lesson than the other music experts, who tended to isolate a single concept for presentation and analysis. Patterns of repetition and contrast also featured significantly in the music experts' views of developing understanding in music.

Concerns about "revisiting" the same art exemplars and concepts over time and the risk of repetition were never problematic for the art and music experts. Both art and music experts viewed their disciplines as complex and nonlinear and saw any art/music exemplar as fair game, dense and rich enough for multiple encounters to teach students different concepts. However, both groups did not address the vertical articulation of the curriculum very well and how redundancy might be promoted by default, not only by encountering the same art forms repeatedly through the grades or similar activities but also the same concepts focused on formal analysis of elements.

Those experts in art and music who could speak eloquently to the interrelationships of ideas or concepts tended to state objectives and concepts as principles or "big ideas." For example, the statement "the way musical elements are combined into a whole reflect the origin of the music" says much more about

what students are to understand than does "steady beats" or "ABA form." These experts also tended to present sample units or lessons that likely would develop students' understanding in considerable depth, using varied contexts and activities for the exploration and application of ideas. More than university experts, teacher experts tended to think of content in *units* of study rather than in isolated lessons. They tended to "stage" knowledge as a production of developing understanding over time, with different but related, evolving activities and action strung together, much like drama. In the curriculum exercises, they tended to present their units and lessons more as narratives than sparse lesson plan formats.

Whereas experts in both art and music used whole-group instruction, those experts who were more facile with "big ideas" were more inclined to include small-group activities, puzzles, simulations, student composition, improvisation, or production as a form of problem solving and expressive application, writing, and interdisciplinary applications (e.g., meter in music, poetry, and opera librettos written and performed by students). Experts with "big ideas" as a pivotal focus in their units or lessons were more apt to encourage students to plan and organize their ideas and activities and to have them work within reasonable parameters with choices. While most of the units and lessons were structured well, there was still considerable student choice and the potential for open-ended, expressive outcomes. These experts demonstrated trust and high expectations by focusing students' attention on their capacity to monitor their own learning and to engage in responsible peer evaluation or self-evaluation.

Except for one or two experts who viewed knowledge as "received," or as low-level concepts and skills dispensed by the teacher or text as authority (who then tested students in this manner), most of the experts in these two studies used diverse informal methods of assessment. Evaluation was conducted in situ in

line with specific activities and by the teacher paying close attention to students' ideas, work, and responses in progress. None of the "big idea" experts mentioned using portfolios, journals, a discriminating grading system, and so forth, although most seemed to be keenly aware of and responsive to diversity by students' interests and ability ranges.

Artistic or musical discourse also was a strong feature of the "big idea" experts' lessons, and this discourse involved students in describing (gradually looking or listening for increased nuance and subtlety), giving examples, comparing, contrasting, evaluating, inferring, generating their own meanings or interpretations, defending or debating their ideas, and often addressing some contradiction or paradox with careful scaffolding. Most importantly, in units or lessons, explicit connections were made among these diverse activities and structural arrangements, all of which seemed anchored visibly to the expert's "big idea." Activities were not a hodgepodge for activity's sake. There was a serious, respectful, engaging tone about these experts' sample units and lessons and how these connected. While one would anticipate these activities would be fun for students, these also appeared to be intellectually challenging and demanding, even in the primary grades.

The two expert studies in art and music provided a wealth of valuable information, heretofore unexplored, and the findings pointed out how differently these two subjects may be viewed by experts within these fields, no matter their professional role or specialization. Further, there were interesting themes by expertise and roles. Compared with their university counterparts, most of the teachers were no less "theoretical," well versed, articulate about their subjects, and how to teach these. If anything, teacher experts were more student- and context-centered than university experts, and they tended to view their work and students' learning more holistically and in complex ways. They were more

sensitive to age-appropriate activities, students' likely interests, and relevancy. Further, the ability to develop or extend a "big idea" pragmatically into a sample lesson or actual practice proved difficult for some of the experts.

Finally, it is also clear that some of the teacher experts were uncritical about the content and concepts in other subjects they linked up with when integrating the curriculum, particularly with social studies. Often, they seemed to have a shallow understanding of "big ideas" in other disciplines, and their generalist colleagues did not seem to be any better versed or grounded in some of the subjects and topics selected for integration. But when most of the "big idea" teacher experts created interdisciplinary units, lessons, or activities, they seemed quite knowledgeable in other disciplines (not just in shallow elementary textbook content). They did not undermine their own discipline nor the other subject areas. In other words, one subject did not become a mere recreational vehicle for the other.

Textbook Analyses and Critiques

In Phase II several studies were conducted, some of which bridged studies in Phases I and III. Two of these studies were extensive analyses of two elementary textbook series in terms of how these instructional materials would likely foster students' understanding in music and art. The music study, *What in the World is Music in World of Music? A Critique of a Commonly Used Textbook Series* (May, 1993d), was based on an analysis of Silver Burdett & Ginn's *World of Music* series published in 1988. An increasingly popular series in visual arts at the elementary level (at least as a resource for teachers) is *Discover Art* by Davis Publications, published in 1985. The curriculum analysis study in art was *Making Art at a Glance: A Critique of Discover Art* (May, 1993b).

The analysis of the *World of Music* series revealed considerable disorganization and the shallow presentation of musical concepts, where most lessons repeatedly focused only on low-level facts and skills. Like many textbooks, *World of Music* provided considerable breadth and little depth. There seemed to be no particular conceptual framework or theoretical orientation guiding the series. The series was divided into four major units or strands: Music for Living (songs in social/historical context), Understanding Music (where conceptual development was supposedly stressed), Sharing Music (public performance), and Sing and Celebrate (holiday and patriotic songs). There was no logic to this organization as many of the categories of concepts or songs were not mutually exclusive and overlapped. Understanding Music contained only 35% of the lessons in the entire series.

Many of the authors' claims about this series being a "structured" series simply did not bear out in analysis, nor did claims about developing students' conceptual understanding or critical thinking. In fact, it would be virtually impossible for a teacher who was interested in developing students' conceptual understanding in music to use the scope and sequence chart or other rhetorical devices in the series to plan thoughtful units or lessons. Concepts were next to impossible to map and trace throughout the series, despite umpteen indices and table-of-contents devices. The lessons, tasks, activities, tests, and ancillary materials mostly measured low-level identification, recall, and visual discrimination, not much aural discrimination or learning *in* sounds, except for the "Listening Lessons." These were a potentially good feature of the series, but as set up in the teacher's text and discussed by the authors in terms of the "minimal" or "basic" program, such lessons likely would not be taught. Rarely did lessons emphasize higher level thinking or musical discourse with respect to expressive intent or outcomes, interpretation, evaluation, aesthetics, or criticism.

Two interesting findings emerged from the study of *World of Music*. First, I raised serious questions about the use of multiple visual representations and symbol systems commonly used in music education. I suggested that these might confuse students more than help them eventually to learn musical notation or develop understanding in music aurally rather than by visual cues. The assumption by textbook authors seemed to be that the more diverse visual representations or symbol systems used, the more that diverse students would understand these concepts.

Stair steps, slashes, dashes, arrows, vertical marks, train tracks, balloons, and other figural forms were inserted willy-nilly along with real musical notation and authentic music symbols throughout the series. Along with what was presented in the textbook series, students likely would encounter yet more representational systems and icons should they be taught by music specialists, such as Kodály hand signals for pitch on a scale, do-re-mi, alphabetical letters of notes, numbers for notes on xylophones, and so forth. Further, I speculated that students are apt to confuse mathematical concepts and musical ones, given the kinds of visual representations used in each discipline. For example, in fractions, a quarter note does not *look* like half of a half note nor one-fourth of a whole note. Musical notation is an arbitrary enough visual system because it does not correspond to real-world objects.

Second, many of the visual representations used in *World of Music* were ambiguous and illogical, having little to do with musical sound. This likely would promote confusion and student misunderstanding. For example, "high-low" pitch or "fast-slow" rhythm often were represented in illustrations such as an owl in a tree and a bird on the ground, or a rabbit and turtle. Many of these depictions were ambiguous because the concepts were relative. For example, students were asked if a clock made a loud or soft sound or if a truck made a loud or soft sound.

Compared to what? And what do these sounds have to do with music? Also, either of these real-world objects can make loud or soft sounds. It depends.

The second curriculum analysis was of *Discover Art.* The findings from this study revealed that the author's claim that the art series was organized around three interrelated themes did not bear out if one assumed that these three themes would be treated equitably. Creating Art (studio production) and Looking at Art (in a particular way, as in the formal analysis of art elements) were emphasized far more than the Living with Art theme. Also, the author's claim that students would "master" basic art concepts and skills if the lessons were followed sequentially did not bear out in the analysis. As in the music series, there was much redundancy in the vertical articulation of the curriculum and repetition of concepts. Finally, the author's narrative scope and sequence chart was quite deceptive, given this redundancy. There was very little difference, for example, in new concepts being introduced in Grade 2 after Grade 1, and the same concepts were rarely treated with much increasing complexity from one grade to the next in close approximation.

As with the expert studies, I noted that when experts or authors claim that their disciplines are "complex" with "interrelated" or "integrated" concepts, they tend to qualify or justify any disorganization, confusion, and redundancy that there might be. The strands or themes that authors claim exist often are rhetorical and very difficult to map and trace, particularly when no index even exists, as was the case in *Discover Art.* So, the teacher's choice is to take the author's word for it--assume there is coherence where there isn't, or else approach planning, teaching, and textbook use in a more proactive, critical manner.

One strength of the *Discover Art* series was its presentation of three to four art exemplars per lesson for students' visual analysis and comparison. While

these analyses tended to focus primarily on the elements of design rather than interpretation and critique, at least a comparative context was used as a framework for each art lesson. Another strength in the series was the succinct, carefully organized format of the lessons in the teacher's text and a clear articulation of the objectives (usually three per lesson). While informal and often much too brief to engage students in art discourse, evaluation at the end of lessons always pointed back clearly to these objectives. Further, there were very few lesson extensions or specific recommendations for interdisciplinary connections. The author tended to maintain a strong focus on the art discipline, with connections to other subjects made by the vertical articulation of the series (the grade levels in the art series were linked to the "expanding communities" curricular design in American social studies textbooks).

On the whole, *Discover Art* appeared to be extraordinarily user-friendly, and I suggested that other subject-area authors might learn something of value from *Discover Art* by examining how the teacher's text is organized, what is included in the introduction, and the author's writing style. The author seemed quite familiar with the contexts and constraints in which most elementary classroom teachers and specialists work. Estimated times for each lesson segment were provided, how to lead students in visual analysis was articulated, and the organization of materials and activities was stated clearly.

But most importantly, in front of the teacher's text were diverse examples of students' artwork across at least three grade levels to give nonart teachers a sense of the range and diversity of depictions students might produce within and across these grade levels. There was a discussion of children's development in art that was research-based, even though no research was cited. Also, there was a discussion of the major goals or three themes of the series with succinct clusters of subtopics under each, stated more or less as principles. There was an outline

of art materials and quantities of these that would be needed for students and the teacher at each grade level. And there were tips (clear-cut graphics) on setting up and organizing particular kinds of media or lessons (e.g., tempera paint distributed in styrofoam egg cartons, printmaking set-up and procedures, etc.).

As a textbook series focused primarily on learning to discern the elements of design and making art, most of the activities in *Discover Art* seemed fitting and appropriately scaffolded in light of the major goals. There was much literal questioning (looking for the elements of design or comparing/contrasting these) and changes from medium to medium across lessons (many lessons of which were repeated across grades with different exemplars for illustration). There were limited opportunities for critical discourse, few opportunities for students to work in small groups or on collective projects, and there was little emphasis on interpretation in terms of expressive intent, response, and criticism. The few little "tests" or reviews, only two per year provided at each grade level, focused on low-level visual discrimination of art elements, identification of terms, and the recall of formulaic procedures.

As in the music series, there was more repetition and redundancy than necessary when the selection of content and vertical articulation of activities were analyzed across the grades. Unlike the music series, when correlating subjects was recommended in *Discover Art,* the suggestions usually did justice to both disciplines. The music series authors, however, seemed to have little understanding of other disciplines when they recommended integrated extensions or correlated activities, which often were busy work and quite superficial or artificial in terms of what students would likely learn in/as music as well as the other subjects.

Critical Curriculum Analysis Focused on Diversity

A third curriculum study by May, Lantz, and Rohr (1990), *Whose Content, Context, and Culture in Elementary Art and Music Textbooks?*, was a comparative analysis of the preliminary data in the above two studies with a particular focus on the presentation and treatment of equity and diversity in these two textbook series. Although both series appeared to cover the waterfront on cultural diversity, close analysis revealed that this was quite shallow and deceptive. The primary emphasis was on white, Western, Eurocentric, mainstream art objects and musical literature, and approaches to viewing and responding to art and music objects also reflected this same bias. Both series presented a parade of cultures with little depth or background information provided to students and teachers. The music text was better in providing the teacher with background information, however, inconsistently by grade level. There was little attention to Asian cultures in either series.

Both series tended to strip art objects and songs from their social, cultural, or historical contexts in an interest in engaging students in the formal analysis of the elements of design or music (line, shape, pitch, rhythm). And in both series, there was very little text for students to read, forcing students to rely primarily on the teacher as authority, an "objective" formal analysis of art objects or musical works, and studio or performance activities rather than engaging in active artistic discourse.

The art series was much better than the music series in its presentation and treatment of women, particularly in terms of including artworks created by women (and several art forms of the untraditional sort, as in large metal sculptures that required welding and huge studios). Another major finding was that both series uncritically paralleled the elementary social studies curriculum or "expanding communities" organization pronounced in the United States since

1896. For example, at the fifth-grade level, both art or music series emphasized American history, American art, American folk songs, American artists and composers, patriotism, and so forth in a fairly uncritical, noncontroversial manner. In the lower grades, ego-centered content and the local community or community helpers were emphasized. In the sixth grade, world history (world art and music, primarily American or Eurocentric) was pronounced. Often these linkages were superficial, leaving serious doubt as to what students would come to understand within or across these subjects.

Studies of Art/Music Teachers' Pedagogical Conversations

Another study in Phase II was designed to balance the numerous Center studies focused primarily on curriculum materials. By focusing on the mediated nexus between curriculum and instruction, this study also served as a bridge across the curriculum analysis studies and case studies of expert teaching, and illustrated areas of improvement in practice or the need for such as this pertains to facilitating *teachers'* learning. *Art/Music Teachers' Curriculum Deliberations* (May, 1990a) drew on the Center's case studies of expert teaching in art and music as well as previous research on curriculum deliberations and art practice in weekly staff meetings at the district level among a group of elementary art teachers and their supervisor (May, 1985).

This study examined several art and music teachers' thinking in situ and their development or mediation of the curriculum as they planned, taught, reflected on their practice, collaborated with each other, and/or engaged in conversations with researchers in their classrooms or in informal interviews. All of the vignettes demonstrated what and how teachers can learn from each other when there are occasions to observe each other's practice or to reflect critically on problems of practice with colleagues.

The vignettes of curriculum deliberation began with one art teacher's personal-practical knowledge as she slowly reframed and resolved a "discipline" problem in the fifth-grade art classes, which turned out to be primarily a curriculum problem. By reflecting on her past as a young learner, on her current practice, and engaging in conversations with me as the researcher of record, this teacher discovered that to achieve her goal of helping students "get ideas" in art, she would have to present and structure art ideas and activities more explicitly--or else students would create their own activities and off-task behavior. This vignette demonstrated how problems in classroom management are essentially curricular ones and how a teacher's preparation and experiences as a young learner or as an unmentored teacher can influence fuzzy conceptions of what to teach and how. Fuzzy notions can exacerbate problems of practice.

The second vignette in this study captured two kinds of collaborative curriculum deliberation. The first analyzed interactions between an experienced art teacher and a novice who had been urged by the principal to observe the other's practice and to discuss "the appropriate" concepts and sequencing of the art curriculum. As the experienced art teacher shared her "wisdom of practice" with the novice, the micropolitics, tensions, and contradictions in mentoring were noted. The problem was not that the novice teacher did not understand the art curriculum but that she had little understanding of primary-level students, how to present art concepts to them, and how to facilitate art discourse.

The more experienced art teacher in this duo did not like being politically wedged between a novice teacher, the principal, and disgruntled classroom teachers who were unhappy with the novice's practice. Basically, she viewed this brief mentoring as an imposition, not only in terms of the micropolitics she had not asked for but also in terms of what was *not* provided novices by their initial preparation programs. She also was concerned about the nonexistent, district-

level coordination and supervision in art. Because of budget cuts, there was no longer an art coordinator at the district level. While the novice art teacher appeared to have learned much from her observation and discussion, the experienced art teacher behaved as though she had nothing to learn from this novice. Her view seemed to have been, "If you haven't learned how to teach by now, then you're not apt to learn a lot any time soon, even with my tips."

The other collaborative example of deliberation was among three elementary music teachers in their weekly curriculum planning meetings after school. Such collaboration among specialists is rare, as most specialists are isolated in their planning and teaching of art and music. Most notable, then, was the substantive attention these music teachers paid to the vertical and horizontal articulation of the music curriculum within and across schools, students' conceptual development, and pedagogical strategies for teaching concepts and sharing resources.

These music teachers drew diplomatically and enthusiastically on each other's strengths to the each other's advantage and to the collective advantage of an entire school system's new elementary music program. The public forum and mutual support the teachers created for themselves "out of hide" not only overshadowed their incredible constraints (e.g., having to teach 1100 students each per week in 30-minute periods). Also, the artifacts, lessons, and performances arising out of this forum made quite visible to generalist teachers, parents, and the community what music teaching/learning should and would encompass and accomplish in this district. Finally, these music teachers focused heavily in their deliberations on subject matter, students, and diverse ways to represent music to students. Surprisingly, there was little unproductive discussion about their contextual constraints.

The final vignette of collaborative curriculum deliberation illustrated--by negative example--what elementary art teachers did *not* have an opportunity to learn in their weekly staff meetings over the course of a year. The absence of public, pedagogical reflection and dialogue pointed to several negative effects, not only in terms of the art teachers' incapacity to discuss curricular and pedagogical matters on the few occasions when they did have an opportunity to do so, but also with respect to long-term negative effects on students' art learning across a large school district. Weekly observations of art practice over a two-year period and interviews with 144 third and fourth graders revealed that students had disjointed encounters with art that were studio-focused, they developed shallow understandings in/about art, and there was much redundancy in the vertical articulation of the district's *enacted* art curriculum in terms of art concepts, activities, topics or subjects, and media used.

Studies of Expert Practice

In the study, *Good Teachers Making the Best of It: Cases of Art and Music Teaching* (May, in press), I and two research assistants studied the curriculum and teaching of four expert teachers and what their students learned over the course of several months. Both art teachers were studio-focused and primarily used whole-group instruction. One contextualized studio activities in social/cultural context in several of her lessons by having students make art objects or subjects drawn from other cultures. This may have been the case because she worked in a small but culturally diverse school setting (over 100 nationalities). The other art teacher paid little attention to student or cultural diversity, instead, giving sustained attention to the visual analysis of art exemplars in each lesson's introduction before students engaged in making their art.

The first art teacher had several years of experience, and the other had only five years' experience. The experienced art teacher was astute in helping students frame art problems in a variety of responsive ways, for example, helping a student recognize that his sagging, soggy paper maché sculpture had become an "engineering problem" to be solved. She was also very knowledgeable in other disciplines and attempted to connect students' art learning to "big ideas" and topics in other subjects students were studying, in particular, social studies, science, and even mathematics. She was adroit in crafting lesson activities, multiple transitions, and varying the context of students' activities in ways that sustained their attention and ideational development, which also maintained purposeful, goal-directed behavior in the classroom. She paid close attention to students' prior knowledge, experiences, and likely misunderstandings and drew on this information in direct instruction, demonstrations, questioning students in artistic discourse, and facilitating students' planning and problem solving in making their art and personally critiquing the outcomes.

The less experienced art teacher, once she resolved management problems in the upper grades, experimented with new ways to present art concepts (drawn primarily from the *Discover Art* textbook series), how to question students during direct instruction that focused on interpretation, how to demonstrate techniques and procedures without promoting stereotypical responses or student imitations of these examples, and how to organize students and materials into manageable activities, shared responsibilities, tasks, and smooth lesson transitions.

As this art teacher became more skillful in the above areas, she experimented with having students in the upper grades create their own sketchbooks and portfolios, however, with minimal success. She also tried to develop ways to communicate to parents what students were studying in art and why during progress report periods. She attempted to explore what some groups of students

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were interested in studying or getting "smarter" or "better" at in art and crafting her curriculum along these lines for a while. Many of the changes this teacher made were serious attempts to get clearer about what *she* wanted students to learn in art, why, and how.

One noticeable change over time was this teacher's keen interest in developing students' thinking and a more positive disposition toward the many dimensions of art such as aesthetics or criticism, and not just promoting a curriculum that was "make-and-take" studio activities. The art exhibits of students' work in the spring that this teacher organized were nothing short of extraordinary; these were sophisticated displays, even accompanied by live music, and they were well attended by the school community and parents. However, these matted works and successful shows masked some of the real difficulties this teacher experienced behind the art room door on a daily basis for a time, particularly in teaching fourth and fifth graders.

The major problem during the course of the Center study was this teacher's thoughtful but sometimes erratic experimentation and changes midstream to adjust her curriculum and pedagogy. For example, she would read my transcripts and fieldnotes from a classroom observation, which I shared without critical comment, and these invariably would raise questions or assist the teacher in reflecting on her practice and what she thought was effective or needed serious adjustment. Or, she would hypothesize what "the problem" was, and I would agree to gather data in her classroom to help her test her hypothesis. For example, at one point, the teacher suggested there wasn't enough time to teach an art lesson, that she always ran out of time. So, my observations for a week across several art classes focused on time-on-task, how long different lesson segments and transitions took, and which students were participating in what kinds of

activities or behaving in certain ways during these periods. Confronted with the data and her initial question, the teacher reframed the problem.

Thus, for a semester, the upper level students had a difficult time adjusting to sudden, repeated changes in the art teacher's expectations, rules, and procedures as a result of her reframing problems and pursuing alternative courses of action. However, the following semester (and year), this teacher had had time to reexamine her goals and reflect on her practice, pedagogical experimentation, and its likely effects on students' learning and behavior. She was able to plan and teach in ways that her expectations were established early in the semester or year with fewer abrupt, radical changes midstream. She was more persistent in pursuing one particular course of action to some fruition rather than changing courses many times. She also exhibited much more confidence in teaching the upper grades, in managing activities and materials, and was much more focused on monitoring and evaluating what students were learning and understanding in art.

The findings in this study and portions of the deliberation study suggest that how we define "novice" teachers must extend beyond their years of service or tenure. This is important in terms of teachers' personal-practical knowledge and individual biographies as learners because these experiences obviously influence teachers' subsequent understanding of subject matter, pedagogy, and learners. But this finding is even more important in terms of the special needs of specialist teachers.

As itinerants, most elementary specialists are more professionally isolated or "invisible" than classroom teachers because they do not work in a single, stable context or school community where collegial relations, mentoring, and the swapping of professional wisdom and tips might develop informally and naturally. Further, because of contract agreements concerning planning time,

classroom teachers typically leave the classroom when the art/music teacher arrives or "drop off" students to a designated art or music room. Thus, no other professionals typically are around when art/music teachers teach. It is critical that we understand that most novice specialist-teachers do not have an informal network of collegial support or "shop talk" when they are learning to teach early in their careers, often ever later. The above art teacher had five years of teaching experience in at least three kinds of settings, but when the Center study began, her difficulties and ways of framing problems greatly resembled those of a student teacher or beginning teacher. The same was the case for the young art teacher collaborating with the more experienced one in the deliberation study. She had seven years of experience but little field experience at the primary level.

The two expert music teachers in the case studies were exemplary in terms of teaching music for understanding. Both teachers worked in the same school district and had written and spearheaded the new elementary music curriculum themselves for their district, which was in its third year when the Center study began. The two teachers in this case study were two of the three music teachers observed in their planning sessions in the deliberation study. Both teachers were involved in musical activities in their churches or communities outside of teaching music in public schools. As with the art teachers, the music teachers' practice was observed by Center researchers on a sustained weekly basis in the classroom over several months with intermittent interviews.

One thing that the music teachers had in common was working in the same district as itinerants and their incredible workload and constraints: a pupil-teacher ratio of about 1100 students per week; eight-nine classes a day; traveling around to three-four schools per week; only 30-minute lessons; little collegial or administrative support for music outside of themselves; and although having music rooms, these areas often were used for noneducative purposes such

as installing voting booths or storing Christmas sausage and candy for fundraising drives. This meant on several occasions that the specialists were displaced from their rooms and forced to move boxes of musical instruments, audiotape players, tapes, and other instructional materials from classroom to classroom. Also, because music instruction had only recently been funded in this district, this also meant that fifth graders had had no more formal music instruction than had the second graders.

Because the music teachers engaged in collaborative planning in two-hour blocks after school almost weekly and used the same lesson plan form developed together, the structure, content, and sequencing of their lessons were very similar. Both were committed to incorporating listening, performing and creating music in every 30-minute lesson, no matter the grade level. However, each had unique interests and expertise (which they shared), a distinct teaching style, and they followed their plans flexibly and responsively to meet the needs of diverse groups of learners. They monitored their progress carefully and tried to maintain a reasonably similar schedule so that groups of students at the same grade levels within and across schools would not be too far out of sync in covering the curriculum, developing musical concepts and a repertoire, and encountering the musical literature the teachers had selected jointly.

Each 30-minute lesson was fast-paced and packed with many quick transitions, diverse activities, and varied contexts for students to develop, apply, and extend their knowledge and skills. For example, the teachers even used pitch matching to take attendance while monitoring individual student's progress in their roll books. There were always engaging vocal warm-up exercises that kept students alert, poised, and on their toes. The lesson segment called "Vocal Warm-Up" included its own goal, song or musical exemplar, pitch matching, and attendance.

Each lesson plan also contained a Listening Lesson within the lesson (e.g., learning musical concepts related to jazz while listening to and studying Dave Brubeck's work as an exemplar for several weeks). Related to the Listening Lesson, a musical work and its composer were identified, a musical goal in this area was specified, and there was a teaching sequence. Call charts developed by the teachers also were used frequently (posters or worksheets for students to map the structure, form, sequence, melodic/rhythmic patterns, and dynamics of the music they were hearing).

In exit interviews almost every youngster from first grade upward spoke of listening to music, composers, and specific pieces of musical literature as an enjoyable and important aspect of music. A few students may have called these "composures" or "Mozark," but it was quite evident that they had developed a deep understanding and appreciation of music from these Listening Lessons within lessons. Students could tell stories about the composers' lives or work, and they valued listening to a variety of musical styles as much as singing, playing instruments, or moving to music. All of the students interviewed used musical discourse to talk about what they had learned, for example, terms like "ostinatos," "legatto," "staccato," "canon," "phrase," "ABA form," titles of musical literature, and names of composers like Tchaikovsky's "Nutcracker Suite," Handel's "Water Music Suite," or Beethoven's "Für Elise."

The music teachers presented musical vocabulary and concepts with clarity and in a variety of representational forms, carefully scaffolding and developing students' understanding across time. Each lesson contained a segment called "Music Concept" which was developed both by performing and creating music (e.g., composition, improvisation, call-response patterns in vocal and instrumental music and in movement). Performance included improvisation, vocal music, responding in various ways to aural stimuli and

musical pieces, and instrumental music which included playing Orff instruments, xylophones, recorders, and other percussion instruments as well as using a lot of body percussion.

The two music teachers carefully monitored and mapped their lessons over chunks of time in terms of what they actually presented or accomplished and what was changed flexibly to meet students' emergent needs or unexpected interruptions in school schedules. For example, the teachers' lesson plans revealed notes to themselves, additions, and scratch-throughs, and every lesson plan was kept by each teacher in a large notebook as a record of individual and collective progress, with which specific groups of students, and where.

Finally, these two teachers viewed music as a serious, worthwhile area of study or discipline and refused to bend to the pressure to entertain parents or lose precious instructional time in preparing students for public performances or school musicals. Public performances were few during the school year, and when these did occur, the teachers "taught" parents or the audience on these evenings. For example, they used these occasions to showcase the concepts and musical understanding students were developing, not flashy performances with costumes and the like. Nevertheless, these few performances were quite impressive, seemed well rehearsed, and families enjoyed these tremendously.

The polished look and sound of these few performances was due to the teachers selecting music and activities familiar to students that were a natural outgrowth of what they were learning in music class. Each musical piece in a public performance was introduced to the audience by one of the teachers in terms of what students had learned in music class in order to sing or do X that the audience was about to see and hear. The teachers also sent home frequent announcements about what students were learning in music and frequently suggested home activities, interesting resources, musical opportunities, and

upcoming events or performances that families might wish to pursue in the local community.

What Have We Learned From Research in Art/Music Teacher Education?

The findings in the Center studies in teaching for understanding in elementary art and music raise questions about how teachers are prepared in their initial certification programs, be these art/music specialists or generalists, and what it is they learn. Thus, one question is, What does research tell us about the nature of art/music teacher preparation programs? The second is, What does research tell us about our strengths and weaknesses as teacher educators, or the effects of our efforts on teachers' learning when in our programs and thereafter when teaching art/music in public schools?

First, I will present a brief summary of what research tells us regarding the questions I have posed above. Using this review, I will point out similarities and differences in concerns, interests, significant gaps, and promising directions for future research in art and music teacher education. I will attend primarily to elementary-level teacher preparation. To support my analysis, I have relied heavily on recent, comprehensive syntheses of research located in professional journals, federally funded projects and technical reports, and in the *Handbook of Research on Teaching* (Wittrock, 1986), the *Handbook of Research on Teacher Education* (Houston, 1990), the *Handbook of Research on Curriculum* (Jackson, 1992), and the *Knowledge Base for the Beginning Teacher* (Reynolds, 1989).

Since the questions I am addressing are fundamentally *curricular,* my analysis is anchored in how I define curriculum: what students have an opportunity to learn--and not. To situate this for purposes here, the definition would read: what teachers (as learners) have an opportunity to learn in/about the arts--and not--in their teacher education programs. Eisner (1985a) reminds us

that we learn important lessons from the null curriculum--that which is *not* presented or experienced in formal programs--as well as from what is. Thus, in the summary of research that follows, the reader should keep this definition in mind in terms of what it is we do know, don't know, and need to know with respect to what *teachers* as students in education have an opportunity to learn in the arts.

There are several ways to explore what it is teachers know and/or need to learn with respect to the arts. Having baseline data derived from questions such as those below would not only give us a good indication of what we have accomplished and how well in art and music teacher education, but also what we may need to pursue in future research and program development:

1. What do teachers have opportunities to learn, and what do they actually learn, in their liberal arts and fine arts courses prior to their professional core and arts-related studies?

2. What is presented and what do teachers experience and learn in arts-related methods courses? What do they have difficulty learning as this then applies to teaching the arts?

3. What do preservice teachers learn in/about the arts and from teaching the arts in their field experiences and student teaching? How are these findings similar or different from those in general teacher education studies regarding field experiences?

4. From classroom study, what do both elementary specialists and nonspecialists teach youngsters in/about the arts in schools? Why have they elected to teach these things, in these particular ways, and to what ends? What do teachers' responses tell us about their sources of knowledge and personal theories in the arts? About their knowledge of the subject they are teaching? About their knowledge of students?

5. If teachers pursued their own questions of interest in the arts (action research), what would a synthesis across such studies teach us about teachers' concerns, questions, methods, and interpretations of the arts, their own learning, and their students' arts learning? How might these findings inform arts teacher education programs and research agenda?

6. What do youngsters actually learn in/about the arts in schools from classroom instruction, arts instruction provided by specialists, artists-in-schools, students' school musical performances or art exhibits, and field trips? In what ways do teachers facilitate students' understanding in the arts from these diverse kinds of experiences and events and ways to learn in art/music?

7. What do youngsters learn and do in/about the arts outside of school that might inform school arts instruction and enhance both teachers' and students' learning? How do students' local knowledge and out-of-school arts experiences compare with the academic knowledge teachers are attempting to foster in school?

8. How are teachers' learning and teaching in the arts influenced by their socioeconomic status, race, ethnicity, or gender? In what ways do these findings corroborate, enhance, or conflict with what we believe teachers should learn and teach in art and music?

9. How are teachers' learning and teaching in the arts influenced by their autobiographical experiences as young K-12 learners, as members of particular communities, or as college learners?

10. What do comprehensive program evaluations in art/music teacher preparation tell us in terms of what teachers experience in these programs, how they develop understanding in the arts and in their own practice over time, and learning outcomes in light of program context, organization, goals, and curricular content?

11. What and how do teacher educators teach art/music in teacher education programs, and what do students learn as a result?

12. What do ethnographies, longitudinal studies, and follow-up studies of arts inservice, collaborative curriculum development, or graduate-level coursework tell us that experienced teachers learn in/about the arts, about themselves as learners/teachers, and changes in their practice as a result of participating in such activities?

13. How do teacher educators in art/music education conceive of their disciplines and conceptualize these in their teacher education curriculum, courses, and pedagogy?

14. How do nonarts teacher educators conceive of the arts disciplines, and what do they teach prospective or experienced teachers about the arts?

15. What do teacher educators learn and/or do differently as a result of working collaboratively within and/or across arts faculty, arts

> education faculty, teacher education faculty, and/or with novice/experienced teachers in the field? What is learned about teaching the arts from these diverse perspectives?

Unfortunately, there is little empirical research in either art or music teacher education concerning most of the above questions, which means there is little baseline data to help contextualize the findings from the Center studies or to point teachers educators in new directions that extneds from sustained lines of inquiry. Boardman's (1990) review of research in *music education* is summarized as follows:

> A cohesive body of research directly focused on how best to prepare the new teacher and to implement . . . recommendations [for curricular change and methods] still does not exist. (p. 730)
>
> Systematic research into contexts and models for music teacher education has not been substantial. Frequently, attempts to redefine curricular content have been based on surveys of teachers in the field as to their opinions of their own undergraduate preparation. (p. 736)
>
> There are no longitudinal studies to help . . . draw conclusions as to the relative value of recommended content, curricular sequence, or experiences. (p. 730)
>
> The call for teacher education reform, recommendations for implementing that reform, and the profile of teacher education curricula remain depressingly similar over at least the past 50 years. (p. 739)

Anderson (1987) also concluded that relatively few researchers have dealt specifically with the problems of improving undergraduate teacher education in music. With respect to reshaping music education programs, one will find proposals but little empirical research or documented reforms in university programs (Leonhard, 1982; Meske, 1985), with some exceptions (Brandt, 1985).

Although the Music Educators National Conference [MENC] (1971) has specified musical competencies for elementary teachers, teaching teachers all they need to know and should be able to do in the limited time available remains problematic and controversial. Ball (1986) recommended that teaching music be

the primary role of music specialists. Leonhard's (1991) survey suggests that this is fast becoming a reality, with nearly 90% of general music now being taught by specialists in elementary schools. Art educators have not been as successful with nearly 60%, but the number of art specialists in elementary schools has increased dramatically since 1962. This doesn't corroborate Mills and Thomson's (1986) 1984-85 National Art Education Associatio's [NAEA] survey report of 35% specialists teaching elementary art. Either this is because of the different groups surveyed (their different roles and perceptions) or because, indeed, there has been a dramatic increase of elementary art specialists teaching art in the past five-six years.

Along similar lines as Boardman (1990) in music, Davis (1990) summarizes relevant research in *art education* as follows:

> Research tells us little about the most desirable relationship and balance of disciplinary components [of DBAE] for teaching specialists or non-specialists. (p. 750)
>
> No research indicates what configuration of art courses for preservice, non-art specialists is most desirable or most effective. (p. 752)
>
> Research regarding the professional knowledge base for teacher preparation in the visual arts is limited. (p. 752)
>
> How much professional education is needed remains a question. Although a large part of art instruction at the elementary level is taught by non-specialists, little information is available concerning the extent of their art preparation [or their knowledge and practices]. (p. 752)
>
> The research literature is void of data supporting particular teacher education programs, practices, and techniques in the preparation of visual arts teachers. It provides minimal guidance for the teacher educator. (p. 754)

As in music education, there has been much debate over who should teach elementary art, with preference usually for specialists. There is continuing concern as to who is best qualified to teach courses in curriculum, methods, and

observation/internship courses in art education (Davis, 1990). Art educators speak more about the collaborative role of art specialists working with classroom teachers than do music educators. Both art and music educators have noted from surveys of university bulletins and other data that studio production and performance are still heavily weighted in teacher preparation programs compared to aesthetics, history, and criticism. For example, despite a 10-year reform initiative in DBAE at the K-12 level, teacher preparation programs still have not increased program requirements in aesthetics, history, or criticism to better prepare art teachers in these disciplinary areas which they now are expected to teach, nor have they decreased the number of hours taken in studio art (Sevigny, 1987; Willis-Fisher, 1991).

Scholarship Trends and Affiliations in Arts Education Research

Paralleling some of the research interests of teacher education and music education during the 60s and 70s, there are isolated studies in art education concerning teachers' values and attitudes, personality traits, creativity, self-concepts, student-teacher interaction, questioning strategies, and role perceptions. In the 70s, around the time of CEMREL, there was sustained research in aesthetic development conducted by Project Zero, but this work bore little connection to schools or teaching.[2] Only in the late 70s and 80s did some of the research in art education shift to studying forms of art response, criticism, and ethnographies or descriptive studies of actual practice. Even here, most of these studies are short on rigorous analysis, critique, and interpretation, and they do not pursue sustained visible lines of research in curriculum, teaching, and learning or the interface of such in educational contexts across time (Davis, 1990; Jones & McFee, 1986).

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[2] For example, see Gardner (1971, 1972), Gardner, Winner, and Kirchner (1975), or Perkins and Leondar (1977).

There is a paucity of qualitative research, ethnographies, or detailed case studies of the actual practice of elementary specialists or classroom teachers in music education. The rare exceptions are studies generated by the National Arts Education Research Center at the University of Illinois, Urbana-Champaign (Stake, Bressler, & Mabry, 1991) and the National Center for the Learning and Teaching of Elementary Subjects at Michigan State University, such as the studies reported here. Whereas the secondary arts teachers' action research projects emanating from the National Arts Education Research Center at New York University are a good beginning, these do not reflect what most teacher educators view as action research in purpose, epistemological orientation, methodology, and reporting style. (See Rutkowski, 1991 as an example of this research; May, 1993c for a critique of how these projects fall short in helping both teacher-researchers and readers learn.) The little research there is on music teaching examines discrete, isolated skills or methods such as reinforcing student behavior (Boardman, 1990).

Most of the research in music education related to teaching draws narrowly from the positivistic, behaviorist tradition, which parallels its similar decontextualized line of scholarship on youngsters' learning. This is less informative than the rich genres of inquiry that have guided research in art education, curriculum, teaching, and some aspects of teacher education since the mid-70s. This new scholarship draws from the perspectives and methodologies of anthropology, ethnomethodology, sociolinguistics, sociology, constructivist psychology, and the arts as in Eisner's (1985a) educational criticism or in literary criticism (poststructuralist analysis). Thus, I am not complaining, as did Grashel (1983), that in music education there is a "paucity of *experimental* research, the lack of focus and, in some cases, insufficient rigor" (p. 30, italics added). I am speaking here of very different kinds of questions that music

educators could be pursuing that require very different epistemological frames of reference and methodologies.

For example, research focusing so much on teacher selection and "competencies" is problematic and formidable. Doyle (1990) points out the following weaknesses we have encountered in teacher education: The restricted range on most of the variables of interest makes it exceedingly difficult to obtain either statistically or practically significant correlations between predictors and criteria for success. Moreover, several powerful factors (e.g., effectiveness of training and teaching context) intervene between characteristics and outcomes. How a teacher teaches depends not simply on who the teacher is but also on how the teacher was trained and where the teacher is teaching.

If music educators and researchers are not ready to make the quantum epistemological leap required in research, a first step might be to examine the dearth of process-product studies in teacher education (teacher effectiveness or teaching effects) and the heated reactions to this work and its misuse by process-product researchers themselves or others (Brophy, 1988; Doyle, 1978; Garrison, 1988; Shulman, 1986b; Zumwalt, 1982, 1988). The point is, there are particular knowledge assumptions and power relations implicit in this more technical view of teaching and teacher education. This prevalent approach to scholarship in music education contradicts the profession's many qualitative goals that can only be studied and assessed by qualitative or interpretive means. It also seriously limits what music teacher educators might learn through research in an effort to improve both teachers' and students' learning in music. Eisner's (1993) comparative book critique highlights these limitations, even on quantitative research's own terms or norms.

The Sociopolitical Context of Reform in Teacher Education

Acknowledging the *constraints* in what we have accomplished to date and in what we propose to do in the future also must be tempered by research findings and the lack of such. These constraints are historical, political, and rhetorical; they are inextricably related; and they will impinge upon our efforts to improve teacher education and arts education. Both arts education *and* teacher education are turn-of-the-century arrivals on the American university scene, and both areas are often perceived and treated as second-class citizens in the academy, as less scholarly or unimportant areas of study compared to the sciences or "high art" associated with the liberal arts and academies/conservatories (Efland, 1990; Feiman-Nemser, 1990).

Evidence of the low status of both arts education and teacher education in academe is well documented in the literature in terms of allocation of fiscal and material resources, faculty pay and gender inequities, typical course requirements and distribution for both arts and nonarts majors, and little external funding to support sustained research, particularly in arts teacher education (Boardman, 1990; Efland, 1990; Judge, 1982; Lanier & Little, 1986; Popkewitz, 1987). While we have come a long way in professionalizing teaching, we still have a long way to go. An excellent review of this journey can be found in Darling-Hammond and Goodwin (1993).

There are enduring tensions between and among disciplinary "purists" or professionals and teacher educators in academe--no matter their generic or disciplinary affiliations. Art/music educators often are devalued by their colleagues in fine arts and music. Teacher educators are devalued by the rest of the university disciplinary community. And, there is little communication and much tension between teacher educators and arts educators in terms of who should teach what with respect to K-12 teacher preparation. Much of this

represents political struggles over limited resources, time, course slots, and the same students, but there is something inherently curricular at the root of this tension that must be resolved before the "who" question can be answered: *What* it is that teachers need to know, understand, and be able to do with the respect to teaching the arts?

While K-12 public schools have come under serious attack since the early 80s, so have the universities and programs that prepare K-12 teachers to teach. However, in the recent discourse of educational crisis and critique, the arts do *not* figure prominently as villain, victim, or savior. For example, it would be difficult to argue that arts education will help future Americans get jobs so that the United States can regain its competitive edge in the global marketplace. Given Americans' perennial interests, views of schools, and our limited empirical research in the arts to alter this predisposition, it is difficult to argue that better preparation and deeper understanding in the arts will make classroom teachers better teachers, learners better learners, and all of us better people. We have many fine arguments generated over the years by arts educators, even new standards, but little persuasive evidence that would cause teacher educators, teachers of other subjects, administrators, or the public to view or value the arts differently as these concern general education or the public good.

Facing the rhetoric and realities of current educational reform will be no easy task for those who seek real change in arts education. First, very little promise of substantive change exists with respect to including or improving arts education in current reform initiatives in teacher education or K-12 public schools. The Holmes reform is a good example, a dynamic consortium of over 100 teacher education institutions around the country working in concert with designated university departments and public school partners to restructure and improve teacher education as well as K-12 schools (Holmes Group, 1986, 1991).

In most experimental sites where program implementation is well under way, few teacher educators have paid attention to the needs of K-12 arts educators or to improving arts education in either teacher education or K-12 public schools. Whereas there may be some dynamic changes occurring in public schools and teacher education programs, the arts remain a mystery and on the periphery.[3] Even though national leaders in teacher education recently published a substantial tome entitled *Knowledge Base for the Beginning Teacher* (Reynolds, 1989), there is not one chapter in this handbook on the arts nor one reference to art, fine arts, or music in the index.

Arts educators should be alarmed that the marginalization of the arts is being perpetuated in these major reform initiatives rather than read these proposals with naive optimism. Likewise, arts educators cannot count on their *own* reform initiatives to save the day nor a successful invasion of others' terrain that is already fenced, plowed, and planted. In terms of how major reforms are conceived, who participates, who has come to the fore as powerful constituents or supporters, and what subjects are receiving the most attention, some reform initiatives are bound to be more powerful and persuasive (and exclusive) than others.

Very little promise of substantive change exists within *arts educators'* reform initiatives in terms of influencing teacher education's policies and practices. For example, while successfully drawing more attention to the importance of art history, criticism, and aesthetics, reform initiatives like DBAE have barely penetrated music education practices (Leonhard, 1991). DBAE has paid little attention to the fundamental changes needed in teacher preparation

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[3] It is still too early to tell if the Holmes initiative will make a significant, long-lasting impact on teacher education as well as university and public school practice (Woolfolk, 1988). But, if the arts remain so invisible at this stage, we shouldn't be surprised to later discover that the arts are still being marginalized in educational institutions from kindergarten through graduate school.

and university pedagogy to teach these subjects (Sevigny, 1987) and ignored the persistent contextual constraints, behavioral regularities, and micropolitics of K-12 schools where teachers work (Jackson, 1987; May, 1989a). While some specialists work earnestly to include or integrate these new disciplinary areas into their visual arts or music instruction, the time allocated per week to the arts has decreased significantly since 1962, and there are incredibly insufficient resources and materials to help specialists teach these challenging new areas (Chapman, 1982; Leonhard, 1991).

University DBAE proponents across the arts have yet taken a hard look at their own curriculum and the kind of labor-intensive faculty development and collaboration necessary to positively and effectively reshape programs and the learning experiences of both specialists and nonspecialist teachers in the arts. Art specialists still take a disproportionate number of studio courses and few courses in criticism, history, or aesthetics (Sevigny, 1987; Willis-Fisher, 1991). Using traditional approaches to K-12 curriculum development and staff development, the long-term impact of initiatives such as DBAE on changing teaching practice remains a serious question (Rand Corporation, 1984). Finally, we know from a long line of research across diverse disciplines and in the curriculum field writ large that a revised *written* K-12 curriculum--even if some teachers participate in developing it--has never guaranteed what actually will be taught, learned, and experienced in classrooms (Bussis, Chittendon, & Amarel, 1976; Clandinin & Connelly, 1992; Eisner, 1985a; Jackson, 1992; May, 1985, 1989a, 1990a; Snyder, Bolin, & Zumwalt, 1992; Wolf, 1992). DBAE's primary change strategy has been K-12 curriculum development with little attention to teaching in different ways.

The content, governance, and contexts of teacher education are severely fragmented (Clark, 1986). Doyle (1990) suggests that over 1,200 of our teacher

preparation programs represent a wide range of institutions from small private colleges to large public universities.

> Because of fundamental differences in size, orientation, and resources among these institutions, conflicts within the teacher education community are not uncommon, and professional associations and accrediting organizations often lack a coherent base of support for setting directions or promoting improvement. (p. 6)

Not only are there differences in state certification requirements of teachers, there are expectations imposed by the National Council for Accreditation of Teacher Education.

Further, it is unclear if the National Art Education Association has the same sort of clout as the National Association of Schools of Music (NASM) as an agency responsible for accrediting the arts-related curricula in higher education. NASM "determines requirements for music teacher education in curricular structure, general studies, personal qualities, and musical competencies" (Boardman, 1990, p. 733). Music educators are increasingly concerned that responding to multiple accreditation agencies seriously limits their flexibility in designing innovative quality programs. Art educators also have expressed concern with state accreditation regulations external to their control and which significantly impede any effort to modify existing programs or to experiment (Davis, 1990). Were we to change teacher education programs, with or without the influence of such regulations, what would we change?

Concerns in Teacher Education About Teachers' Subject-Matter Knowledge

What is salient in this section will be the daunting problem of how to break the perennial, vicious cycle of arts illiteracy at all levels of education--no small challenge for arts educators! For example, other than the sociopolitical dimensions discussed in the previous section, one reason that Michigan State

University's college of education or any other institution marginalizes the arts in teacher education is because many administrators and faculty genuinely do not know any better. We all are products of our K-12 and university educational systems. However, teacher education could be a powerful nexus of far-reaching change for arts teaching and learning. Consider what might happen if *all* teachers, no matter their specializations or school levels, learned about the arts or aesthetic ways of knowing in meaningful ways in their initial preparation. Many of these graduates later become principals, superintendents, staff developers, policymakers, university administrators, professors, and teacher educators. If the ramifications of this proposal are too heady to think about, let's just consider the subject-matter preparation of art and music teachers.

While it seems quite obvious that one important dimension of teachers' knowledge and practice is how they understand the subjects they teach and how they develop this understanding over time, most research in teacher education (until recently) has focused on other matters, for example, teachers' conceptions of their role, beliefs about their work, knowledge of students, teaching strategies, personality traits, attitudes, and so forth. But in what ways or how well do teachers understand the subjects they teach?

Research in teacher education has begun to pay more attention to teachers' subject-matter knowledge and preparation (Anderson, 1988; Ball & McDiarmid, 1990; Brophy, 1990; Grossman, 1988; Leinhardt & Smith, 1985; Shulman, 1986a; Stodolsky, 1988, Wilson, 1988). Questions now concern what subject-matter preparation entails; where and when this occurs; and to what effects in terms of teaching and students' learning. Intended or not, teachers in all subjects influence students through their own engagement in ideas and processes. "Teachers' intellectual resources and dispositions largely determine their

capacity to engage students' minds and hearts in learning" (Ball & McDiarmid, 1990, p. 439).

What teachers need to know about the subjects they teach extends beyond passing familiarity with topics or isolated activities. They need to develop *depth* of understanding as well as breadth in order to generate the kinds of "big ideas" that many of the expert teachers in the Center studies did as a matter of course. In the graduate curriculum courses I teach, most experienced teachers have serious difficulty generating "big ideas," no matter the subjects they teach or the levels at which they teach. I find this quite alarming but not so surprising.

Shulman (1986a) suggests that teachers should possess three kinds of content knowledge: that of the disciplinary structures, claims, and modes of inquiry in the subjects one teaches (as DBAE proposes); "pedagogical content knowledge" or the important blend of content and pedagogy that good teachers possess in terms of knowing how to represent subjects to students in diverse, intelligible, and meaningful ways through a well-developed repertoire; and curricular content knowledge, or knowledge of commercial resources and the ability to select, assess, critique, and modify materials in defensible ways.

Shulman's view of curriculum is quite narrow compared to the one I proffered earlier, which many other contemporary curriculum theorists would support. His contribution is his focus on exemplary teachers' depth of knowledge, rich pedagogical repertoires, and how they manage to develop their understanding and repertoires. Given the Center analyses of art and music textbooks, it is critical that teachers know how to impose order, coherence, and depth on commercial materials when such may not exist.

The Precollege Curriculum of Teachers

Teachers learn subjects long before their liberal arts coursework and professional coursework. They experience the arts and what these subjects mean

as young K-12 students, and usually in very limited ways. This learning has a significant impact on how teachers then view, have access to, approach, and learn these subjects as college students, and how they later present these subjects to their students. Teachers also are influenced by the opportunities they do/do not have to engage in the arts outside of school when they are youngsters. Thus, "a major portion of . . . teachers' subject-matter learning occurs prior to college" (Ball & McDiarmid, 1990, p. 440). During these formative years, teachers acquire knowledge *of the subject,* such as some topics, information, ideas distinguished by the discipline.

Students also develop knowledge *about the subject,* such as truth claims and how these are justified or validated, different perspectives or disagreements within the field, and what discourse and engagement in the discipline entails. Some ideas that students develop about subjects "may not accord with the ways in which scholars who work in these fields think about their subjects" (Ball & McDiarmid, 1990, p. 441). Finally, students develop *dispositions toward the subjects* they learn, acquiring tastes and aversions for particular topics and activities as well as propensities to pursue some kinds of study and not others. Students develop conceptions of themselves as "good" at particular subjects and not others and conceptions of which subjects are more or less important in the greater scheme of things (Goodlad, 1984).

Even though they may enjoy art and music classes, first graders already have learned that these two subjects are not as "important" as reading or math in the greater scheme of things, and many already have developed notions about whether or not they are "good" in these subjects, usually based on "following the teacher's directions" or by comparing themselves with those they perceive more or less talented in production or performance (May, 1985; in press). Many of these concerns about subject-matter knowledge and how this is or isn't developed well

were evident in the Center's deliberation study (May, 1990a) and case studies (May, in press) in which teachers' difficulties in teaching art could be traced to their own learning opportunities and experiences as K-12 students and preservice college students.

In sum, prospective teachers' public school education forms the largest proportion of their formal preparation to teach, with college-level study representing only a short period of study. Second, this lengthy K-12 phase and level of subject-matter study is closely related to the content and level in which teachers eventually will teach. Thus, to desire learning much beyond this level, or in depth, may seem unnecessary to most teachers and to many university faculty who teach prospective K-12 teachers. The outcomes of subject-matter study at the college level are not nearly as well documented by research as those resulting from K-12 study (recall the various National Assessment of Educational Process reports, for example).

The College Curriculum of Teachers

By far, prospective teachers spend the greater portion of their undergraduate study in subject-matter areas or liberal arts courses than they do in education courses. Thus, it is disturbing that despite this high proportion, many teachers still seem only superficially to understand the subjects they will teach. Elementary teachers tend to take half or more of their courses in the liberal arts, however much of this coursework is across diverse disciplines and mostly at the introductory, survey levels. Although majoring in a discipline, secondary teachers often take as few as four or five professional courses before student teaching. Even so, this specialization often does not prepare them well for the diverse courses within their disciplines that they usually end up teaching in secondary schools.

The two most neglected areas of research in teachers' college curriculum are in general studies and subject-matter concentrations. Little is known about what prospective teachers actually learn from academic study in these areas. Merely counting the number of courses taken in this or that or analyzing course syllabi will not provide the sort of answers needed with respect to what teachers have learned and understand in college subject areas (Lanier & Little, 1986). Neither will simple paper-and-pencil tests, narrowly conceived pre- and posttests, nor surveys tell us much. The two subject areas most studied with respect to what undergraduates are taught and what they actually learn are physics (Maestre & Lochhead, 1983; McDermott, 1984) and mathematics (Schoenfeld, 1985).

Professional Core

It is difficult to accurately characterize the contemporary coursework required of teachers in professional education, except that on the surface it looks quite similar across institutions in terms of program content, organization, and structure. This impression is supported by recent surveys of preservice preparation and new intensive, longitudinal research projects in progress across diverse colleges and schools of education (American Association of Colleges for Teacher Education [AACTE], 1987, 1988 or the Research About Teacher Education project [RATE]; Goodlad, 1988 or Studying the Education of Educators project [SEE]; Howey, 1983; Howey & Zimpher, 1989; Joyce, Yarger, & Howey, 1977; and the National Center for Research on Teacher Education, 1988 and its Teacher Education and Learning to Teach project [TELT]).

The traditional four-year teacher education program consists of two years of general education (across the humanities, social sciences, natural sciences, and fine arts) and two years of professional studies. For elementary teachers, the

professional sequence typically consists of an introduction to education, a course or two in foundations (e.g., educational psychology or philosophy/history of education), six or seven methods courses in diverse subjects with related field components--and usually only one or two of these are in arts methods, and student teaching. This program structure dates back to the early part of the century (Feiman-Nemser, 1990).

However, on closer examination, teacher preparation programs are incredibly diverse, fragmented, shallow, unstable, and individualistic. This is due more to institutional norms and the variance of institutional types than some systematic variation attributable to professional education itself (Clark & Marker, 1975; Howey & Zimpher, 1989; National Center for Research on Teacher Education, 1988). This institutional diversity suggests that there might be more potential than not for faculty groups, individual programs, or colleges to experiment in program redesign, development, or reform.

New teacher education program structures are being initiated in several universities with the tendency to add a year or so to complete initial certification only or to complete M.A.T. or M.A. degrees as well as certification. Most proponents argue that these expanded structures provide more time for sustained in-depth study, a flexible framework, and a greater possibility that theory and practice might be integrated and students better prepared in academic subjects. As with any such proposal, however, it isn't always the *quantity* of time spent in study that might improve teaching and learning, but the *quality* of what students have an opportunity to learn, no matter how a program is structured.

We know that field experience has increased in programs over the past few years (Moore, 1979; Zeichner, 1981) and that foundational course requirements (social, philosophical, historical) have declined, sacrificed to more technical

interests (Finkelstein, 1982; Warren, 1982).[4] Recent criticisms of higher education and increased interest in improving the quality of undergraduate education are timely for arts and professional teacher educators in terms of rethinking what liberal arts, arts education, and professional education should be (Association of American Colleges, 1985; Boyer, 1987; U.S. Department of Education, 1984). Rather than view disagreements and confusion over our fields' respective "knowledge bases" as a dismal or immature sign, I see this as a healthy, challenging, ripe opportunity for debate and defensible changes in teacher education within and across fields.

Learning the Arts From Teaching Them

Finally, learning to teach continues long after formal study of one's subject(s), professional education, and becoming certified (Feiman-Nemser, 1983). A teacher's classroom practice and experiences are an additional source of developing subject-matter knowledge. Early findings from the "Knowledge Growth in Teaching Program" at Stanford University (Wilson, Shulman, & Richert, 1987) suggest that as novice teachers struggle to teach their subject in meaningful ways to students, they draw on their growing knowledge of students, the context, curriculum, and their own pedagogy. There is still little evidence from this project that teachers' knowledge of the subject grows or changes significantly (Grossman, 1987; Reynolds, 1987; Wineburg & Wilson, 1988). However, when teachers are mentored or have an opportunity to engage systematically in action research or collaborative research of their own design with university partners or colleagues over a sustained period, their knowledge and practices can change dramatically, even when radical intervention is of little

[4] If this trend continues, it is disturbing for the arts because this means diminished time and attention to the broader foundational and non-performance dimensions of teaching/learning in the arts as well as the study of how the arts are situated in education, society at large, or globally in diverse cultural contexts.

interest to outside researchers (May, 1990a; in press). Merely surveying, observing, or interviewing teachers periodically will have little influence on teachers developing a better understanding of the subjects they teach or changing their practice.

Teachers also learn from the textbooks they use, sometimes understanding something more clearly for the first time (Ball & Feiman-Nemser, 1988). However, reliance on textbooks is problematic since most textbooks are not organized well around a few powerful ideas, err on the side of breadth instead of depth, misrepresent or constrict disciplinary knowledge, water down con nt, and underestimate youngsters' capacities to think deeply or engage meaningfully in subject matter, as the Center textbook studies suggested (May, 1993b, 1993c; May, Lantz, & Rohr, 1990). Further, there may be few commercial materials actually used by *students* in the arts at the elementary level, if at all. Whereas there are numerous textbook studies in other subject areas, virtually few exist in the arts along similar but diverse lines of inquiry, particularly concerning textbook use in classrooms or use by arts teachers as a resource (Squire, 1988).

Teachers' subject-matter knowledge also may be affected by the attitudes and expectations their students bring to the classroom (Ball & McDiarmid, 1990). When facing learners who resist uncertain or complex intellectual tasks, teachers may feel compelled to simplify content and emphasize facts, algorithmic responses, performance, and production with little adventurous teaching or risk-taking (Cohen, 1988; May, 1990a; Powell, Farrar, & Cohen, 1985). This inclination to disengage from the more challenging, intellectual dimensions of learning subjects may not only be evident among generalists but also among elementary art specialists (May, 1985). There is a strong pressage from students and the

school/community context to treat the arts recreationally and as a reward for good behavior or intellectual work done elsewhere.[5]

Finally, once teachers engage in continuing education, tracing what they encounter and learn there proves extraordinarily difficult because of the largely private, independent character of inservice, workshops, disparate graduate courses taken to maintain certification status, or because there is so little research on graduate-level programs and what teachers learn in the arts. Surveys of teachers do not yield significant, fine-grained descriptions of what they actually learn in continuing education courses or workshops--or what and how they teach differently or better as a result of these experiences. Self-reports or attitude scales can only tell us so much about the quality of these experiences or what significant influence there is on teachers' developing understanding of the subjects they teach and how they teach these.

How Can Teacher Education Programs Be Conceived?

Very important dimensions at any level of education are the primary interests, values, or conceptual orientations that frame and drive a program's goals, its curriculum, and the means for achieving these ends. Whether well-articulated or only tacit, a conceptual orientation in teacher education includes a view of what is worth learning, "a view of teaching and learning, and a theory about learning to teach" (Feiman-Nemser, 1990, p. 220). Despite all the important research questions generated earlier, by far the most important question for arts teacher educators to grapple with in the future is: *What should teachers know and be able to do with respect to the arts, and how can we best help them learn this?*

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[5] Even arts teachers being used as "relief teachers" so that classroom teachers can have a planning period reveals this pervasive attitude. Reform initiatives such as DBAE, artists-in-schools, and once-a-year field trips will not make much difference as long as the arts receive so little serious time and attention in the curriculum and daily life of schools.

Responding to questions such as these requires much deliberation, with faculty developing a shared vision over time, a coherent conceptual framework for their teacher education program, implementing their vision, and studying the process and effects in a sustained program of research or program development. This would be even more powerful if such self-study occurred within and across programs and/or institutions. Such a comprehensive effort would begin to address the kinds of questions I raised before the literature review, and it also would provide unique opportunities for the research, teaching, and service activities of university faculty to be more integrated, one activity informing the other in scholarly, interesting ways. It also means that the kinds of questions I raised will require stronger alliances across university departments and with public schools and teachers and much more sustained, collaborative forms of inquiry. With this approach, practitioners and K-12 students would not have to wait until some distant future to learn or benefit from university inquiry, teacher inquiry, or program development.

Table 1 illustrates five conceptual orientations to teacher education that have been discussed across related fields in education. These orientations are academic, practical, technological, personal, and critical/social. Efland's (1979; 1983) orientations should be of particular interest to arts educators because he draws electically on diverse aesthetic theories as a basis for thinking about educational goals, curricula, teaching, learning, and evaluation in the arts.

Eisner (1985b), Jones and McFee (1986), Smith (1987), Wolf (1992), and many other art educators have recommended that *aesthetics* be the consolidating, driving force across all the arts in conceptualizing programs and framing curricular and pedagogical goals at all levels of education. This seems so obvious, but it has received very little recent attention in teacher education research and practice. The important question, however, is *whose* or *which* view(s) of

Table 1. Conceptual Orientations in Teacher Education, Curriculum, and Arts Education

AUTHORS	CRITICAL/SOCIAL	PERSONAL	TECHNOLOGICAL	PRACTICAL	ACADEMIC
Teacher Educators					
Joyce (1975)	progressive	personalistic	competency	traditional	academic
Hartnett & Naish (1980)	critical		technological	craft	
Zeichner (1983)	inquiry	personalistic	behavioristic	craft	academic
Kirk (1986)	radicalism		rationalism		
May* & Zimpher (1986)	critical theorist	(phenomenological/ interpretive)	positivist	phenomenological/ interpretive	
Zimpher & Howey (1987)	critical	personal	technical	clinical	
Kennedy (1987)			applications of skills; applications of principles and theories	deliberate action; critical analysis	
Doyle (1990)	innovator	fully functioning person	good employee	reflective professional	junior professor
Curricularists					
Kliebard (1986)	social meliorism/ reconstruction	developmentalism; child study	social efficiency		academic rationalism
Eisner & Vallance (1974) Eisner (1985a)	social reconstruction; relevance	self-actualization; curriculum as consummatory experience	curriculum as technology	development of cognitive processes *(could go under "personal")*	academic rationalism
Eisner (1992)	progressivism (political dimension) critical theory	progressivism (personal dimension) reconceptualism	[mainstream]	cognitive pluralism	rational humanism
Arts Educators					
Efland (1979; 1983) Eisner (op.cit.)	pragmatic	expressive	mimetic	(pragmatic)	objective

* Author identifies with the curriculum field

aesthetics should be the hub of a program, as there are choices, Efland (1979; 1983; 1992) reminds us. These choices should be weighed in light of general education, contemporary society and the public good, diverse perspectives in the arts disciplines, and the particular contexts in which most arts teachers will be teaching, and particular students and their needs.

By design or default, not all conceptual orientations to teacher education are mutually exclusive; these often overlap or coexist within the same program. "They can shape a single component or an entire professional sequence and apply to undergraduate or graduate level programs" (Feiman-Nemser, 1990, p. 220) as well as to K-12 arts. For example, while many proponents identify "reflective teaching" as a distinct goal or conceptual orientation, Feiman-Nemser argues that this is a generic professional disposition all proponents, no matter their particular orientation, would likely promote. What would distinguish reflective teaching among these different perspectives would be their *primary* interests and goals, suggesting different objects, levels, or foci that teachers would be encouraged to reflect and act upon. The same would be true in using aesthetics as the hub of art teacher education programs. Following are brief descriptions of these conceptual orientations to teacher education.

Academic Orientation

An *academic orientation* in teacher preparation is concerned primarily with the transmission of knowledge and the development of students' understanding of subject matter or the disciplines. "Because teacher educators have not been responsible for teachers' subject-matter preparation, they have tended to ignore the question of what teachers need to know about their subjects to teach them effectively and where that knowledge is acquired" (Feiman-Nemser, 1990, p. 221). DBAE, for example, seems to reflect this academic orientation more

than others in its interest in four disciplines or content areas. I have argued elsewhere that these content areas are not easily teased apart, they overlap a great deal, and that even DBAE proponents within these disciplines confuse these areas in their discussion of how they are different (May, 1988; 1989a).

This renewed interest in disciplinary knowledge or "ways of knowing" can have interesting effects on the more traditional ways of doing things--of which teacher educators and arts educators are only beginning to see. One, teaching and learning to teach are viewed less generically and more specifically as anchored in particular subjects or disciplines and in the realistic social contexts of classrooms where the "rubber meets the road," so to speak. This means much less attention to things like "transfer," general methods, classroom management/ organization, learning styles, critical thinking, reflective teaching, and human development if these interests will be divorced from the consideration of *what* one is trying to teach. Thus, as academically focused folk see it, such topics or methods are meaningless if these are not domain-specific or attached visibly to the teaching/learning of specific subject areas.

Second, arbitrary hierarchical schemes or categories such as "cognitive" and "affective" domains (e.g., Bloom's taxonomy, rigid developmental stage theories, or dichotomizing creative and critical thinking) have pretty much been debunked by contemporary cognitive psychologists as well as many educators. Dispositional knowledge has replaced the term "affective," and it, too, is socially situated in domain-specific learning. Third, there is more interest in documenting students' prior knowledge, naive theories, and developed understanding over time in order to know how best to accommodate students in planning units/lessons and in crafting one's pedagogy responsively.

Fourth, these educators would prefer to see more depth of understanding developed in fewer areas than breadth or shallow coverage to enhance both

teachers' and students' understanding and appreciation of subjects. This means making difficult choices and selecting "big ideas" and major principles deemed most important or critical to teach rather than generating a plethora of behavioral objectives or disconnected facts, topics, and activities. Most teacher educators have yet acknowledged what this disciplinary orientation means in terms of teaching teachers how to write curriculum and unit/lesson plans, still using traditional forms and processes or ignoring this contradiction altogether.

The above interests have a significant impact on all who teach and develop curricula--teacher educators and teachers alike. Why should students learn the elements of design or music? What's the point--or what are the larger goals and bigger ideas one wants students to understand and appreciate concerning this? How is learning "this" connected to "that" in this subject? This interest also has an impact on designing exemplary activities and assignments to enhance students' understanding. How might we evaluate and assess student learning? Evaluating this kind of learning requires more thoughtful forms of assessment than is currently used (if at all in the arts) to allow students to demonstrate their learning in progress, to encourage them to monitor their own learning, and to develop metacognition (thinking about their own thinking). Alternative forms of assessment (e.g., learning logs, journal writing, portfolios, cooperative learning and group projects, thoughtfully crafted classroom discourse) also provide teachers with more visible, systematic access to students' learning and experiences for their own pedagogical reflection and learning.

One final effect of this renewed academic orientation relates to interdisciplinary curricula and teaching. Most academic proponents in universities are purists, preferring domain-specific teaching/learning, and are skeptical or resistant to linking their subject area(s) to other disciplines. Some of this concern may be legitimate given how disciplines are typically understood in shallow ways

by many teachers, the indefensible connections that often are made, the fact that no one has ever really studied what connections students actually make (if any), and that one of the subjects usually ends up becoming a recreational vehicle (RV) for the other.

However, I see a persistent interest on the part of most practitioners in interdisciplinary curriculum and their wanting to make connections across subjects through collaborative planning, theme teaching, and team teaching. This was confirmed in several of the Center studies. Many practitioners and students seem to find this sort of learning more meaningful, but there is little empirical research to determine if students learn subjects better, and in what ways, from this curricular organization. More importantly, practitioners are more realistic and sensitive perhaps to the constraints of schools as workplaces and are savvy about ways to counteract or confront these constraints than are many disciplinary experts who rarely conduct research or teach in K-12 school settings. From a political vantage point, integrating the arts with other subject areas is one way to ensure that students may get more art and music experiences in schools than is allotted by minimum state standards or school policies.

Practical Orientation

The *practical orientation* should not be confused with the technological orientation (that follows) nor with utilitarianism; "vulgar pragmatism" (Cherryholmes, 1988); or truisms such as "whatever works," "whatever is most efficient," or "sink or swim." The practical orientation focuses attention on "the elements of craft, technique, and artistry that skillful practitioners reveal in their work," recognizing that all teachers deal with unique situations and that the nature of teachers' work is complex and ambiguous (Feiman-Nemser, 1990, p. 222). This orientation has long been associated with apprenticeship models of

training that endorse the primacy of experience as a source of knowledge about teaching and a means of learning to teach. Teaching dilemmas are not "resolved," per se, but artistically managed through practitioners' reflection-in-action, invention, and improvisation. Schön's (1983, 1987) studies of practice in different professions and Dewey's (1904) laboratory view of practice and the intellectual work required of teachers reflect this orientation. Also, interests in cognitive pluralism, situated cognition, and "multiple ways of knowing" fit this orientation (Eisner, 1982, 1992; Gardner, 1983), as previously alluded to under some of the contemporary interests in the academic orientation.

In teacher education, Feiman-Nemser (1990) suggests that the practical orientation is reflected in the view that

> learning to teach comes about through a combination of firsthand experience and interaction with peers and mentors about problematic situations. Through these experiences, the novice is inducted into a community of practitioners and a world of practice. (p. 222)

Theory is situated in and derived from one's own reflective practice and those theories, reflections, and practices of others in the profession--or the "wisdom of practice." In sum, a more accurate view of this orientation would be that of master teachers working with novices in a reflective, intellectual, and practical enterprise in real or simulated educational contexts.

Further, master teachers are viewed as lifelong learners as much as the novice teachers with whom they are working. Their learning would be of as much interest to teacher educators or researchers as the novices' learning and practices. The Center deliberation study (May, 1990a) reflected this orientation to teaching, and the findings demonstrated the diverse and powerful ways in which teachers can learn to be reflective about their own practice by engaging in conversations or observations of practice with colleagues. The Center studies also pointed out the negative effects on art teachers (and their students' learning)

when specialists are professionally isolated, do not work on a sustained basis in a single school community, and have no informal mentoring or support as novice teachers. Even well into their fifth or seventh year of teaching, unapprencticed art teachers can experience those problems of practice that are more familiar to student teachers and first-year teachers.

Technological Orientation

The *technological orientation* focuses primarily on the knowledge and skills of teaching, with its primary goal being to prepare teachers to carry out the tasks of teaching with proficiency after acquiring principles and practices derived from the scientific study of teaching. "Competence is defined in terms of performance" (Feiman-Nemser, 1990, p. 223). Process-product studies and teaching effectiveness research reflect this interest or orientation to teacher education. The potential and real limitations of this orientation were noted previously (Brophy, 1988; Doyle, 1990).

Music education reflects this conceptual orientation in its emphasis on identifying and measuring discrete competencies and skills acquisition. Since the turn of the century, art education has not seemed to embrace this orientation. However, unwary or uncritical art and music teacher educators run the risk of adopting this framework if they have known no other orientation in their own field and it feels familiar or if they do not engage in an extensive review of the literature in general teacher education. Forms of this orientation in general teacher education are competency-based teacher education (e.g., PROTEACH at the University of Florida; Smith, 1984), behavioristic training models (Hunter, 1982; Joyce & Showers, 1980), or "teacher as decision maker" where teachers are to learn theories or generalizable principles, engage in rational decision making,

and apply these theories and principles to their practice, no matter the subject area, the particular students, or unique context.

Personal Orientation

The *personal orientation* places the teacher-learner front and center in the educational process, drawing interests primarily from developmental, humanistic, and perceptual psychology. Learning to teach (as in youngsters' learning) is viewed as a "process of becoming or development" (Feiman-Nemser, 1990). Some proponents define this in psychological terms in which students shift from partially dependent roles to fully responsible roles as teachers (Biber & Winsor, 1967). For others, it is developing a personal psychology and theory and finding one's own way as best as one can (Combs, Blume, Newman, & Wass, 1974). Still others reflect this interest in their studies of prospective teachers' expressed needs and concerns over time regarding their self-perceptions of adequacy (Fuller & Bown, 1975). In teacher education, this interest traditionally has been reflected in the use of personality and "teacher concerns" inventories, attitudinal surveys, adult developmental stages (cognitive orientations and moral development), and in individual learning/teaching styles.

More recently, however, this interest seems to dovetail the practical orientation, reflected in teacher educators' use of published teacher autobiographies and biographies as a legitimate source of pedagogical knowledge or curricular resource, teacher lore, similar experiential narratives and journal writing promoted for novice and experienced teachers in teacher education courses, and some forms of action research. Art education may have embraced this orientation implicitly in the preparation of teachers during field methods courses, student teaching, and with earlier developmental, expressive, or "child-as-artist" views of learners promoted in preparation programs. Neither art nor

music education, however, has demonstrated much interest in studying teachers' pedagogical thinking, narratives, journal writing, or reflections on their lived biographies or pedagogical experiences and practices.

Critical/Social Orientation

The *critical/social orientation* emphasizes a progressive social vision with a radical critique of schooling (Feiman-Nemser, 1990). Both teacher educators and teachers in K-12 schools are viewed as having an important role in social reform that can create a more just, democratic society and diminish the social inequities that have been documented extensively in schools over the past few decades. Both teacher educators and teachers are viewed as potentially active, political agents of change who should create learning communities in university and K-12 classrooms that promote democratic values such as diversity, inclusion, and group problem solving. They also work beyond their respective classrooms in schools, universities, districts, and communities in helping define more equitable policies, curricular forms, organizational structures, and teaching practices that will diminish the sorting of students arbitrarily and unfairly by ability, social class, gender, race, ethnicity, or culture. In teacher education programs, such interests are reflected in critical/feminist pedagogy (Sleeter, 1991) in which students and teachers are encouraged to find their voice and identities by linking schooling with their experiences in the larger sociopolitical community (Giroux & McLaren, 1986; Goodman, 1986; Zeichner, 1987).

Little of this interest has been expressed in music education. In art education, this orientation has been reflected in an increased interest in diversity and multicultural education beyond a parade of cultures or surface attention to differences (Blandy, 1991; Hart, 1991; Zimmerman & Clark, 1992); using more inclusive, representative art forms from diverse social contexts in curricula;

critiquing elitism or the selection of only "great Western works" as exemplary art forms to study; and critiques of the status of women in art as art objects as well as their marginal treatment as artists, writers, or teachers (Garber, 1992; May, 1992; Sandell, 1991). Even philosophy, paradigms, and orientations such as described here have been called to question for their tendency to congeal ourselves into arbitrary categories and ways of speaking/acting (May, 1992; Pearse, 1992). Unlike the other orientations, this one requires considerable self-reflexive monitoring and critique; critical pedagogy that attempts to disperse authority, enlighten the oppressed, and invite others to critique oppressive structures or behaviors; and conversational or democratic arrangements and practices in teacher education programs or courses as much as in K-12 school settings. Otherwise, critical teacher educators' practices would undermine their goals or social and educational reform.

Designing or Composing a Program

These multiple orientations to teacher education exist because people hold different expectations for schools and teachers. We also have more goals than we could possible achieve--at least, all at the same time. For example, while the lists of goals emanating from NAEA and MENC are commendable, they also are daunting and difficult to articulate with either sufficient equitable attention or pedagogical aplomb in practice. Are some of these goals more important than others? Can goals be priortized in such a way that decisions then can be made about what should receive more or less attention, when, and where in a teacher education program? What can reasonably be accomplished, given most art and music instruction occurs only once a week in schools--and then for less than an hour? Addressing such questions would assist a group of teacher educators in

identifying what is most important to them, what alternative courses of action they might pursue toward these ends, and to what potential effects.

None of these orientations alone is sufficient for developing a coherent, defensible program in teacher education because no one orientation adequately describes or explains the complexity of teaching and all that one needs to know and be able to do in order to be a good teacher. No one orientation accommodates all of the goals that have been generated by NAEA or MENC. For example, from analyzing the research as well as current practice and proposals, music education--despite its multiple goals--has employed mostly a technological and academic orientation. Art education has used primarily a personal and practical orientation in its preparation of teachers. The recent DBAE reform reflects a strong academic orientation with little attention to teaching. Many contemporary visual arts educators who are concerned about aesthetic pluralism, multi-culturalism, social equity and critique DBAE for limiting how art may be perceived or taught reflect the critical/social orientation to teacher education. To them, teaching is moral act; it isn't just about subject matter. When some of these orientations or ideologies are considered together, they are contradictory in purpose and spirit. However, some seem complementary or more appropriate to pursue than others, considering the particular research traditions of art and music teacher education identified here and the goals espoused across both fields.

The different orientations discussed constitute a constellation of ideas and practices to draw on in deliberating how best to prepare teachers in our particular contexts. Merely selecting an "equal amount of each orientation" to cover our bases, with some waffling affinity for shallow eclecticism, won't do. Surely some orientations are of greater value than others given the histories, traditions, and precarious position of art and music education in general education. These are tough decisions to be made, but such negotiation and agreements would help

teacher educators reconsider what they value, what their subjects of interest really are, and what teaching the arts should engender.

Developing a conceptual framework or shared vision, even with the inherent compromises that people will need to make, would help teacher educators craft their programs in concert with their ideals and in more defensible ways than is currently practiced. What is most worthwhile to teach and learn in the arts is a curriculum decision to be made by teacher educators--both generalists and arts educators--preferably *together,* since it is obvious that both groups know little of what the other has accomplished or is trying to achieve. Both groups, as well as arts professionals, have a history of working in encapsulated ways and not reading, speaking, writing, nor working much beyond their respective fields or immediate interests. Sometimes there are exceptions. For example, see Kushner (1991) for an interesting account of performing musicians working with teachers and students, which is an excellent example of research on cross-professional collaboration and issues related to this.

Because I am a curricularist, I strongly believe in *groups* of informed professionals deliberating and charting their own course in local contexts, and I dare not tell others what is best for *them* to do in their particular contexts. However, this review suggests where there are serious gaps in research and where they may be some rich possibilities for change. Personally, for example, I would be apt to choose an orientation to arts education and teacher education that is a cross between the practical and critical orientations. I would choose this on the basis of my own experiences as a learner, recalling those memorable and powerful events in my life related to the arts that moved me as a learner and eventually as a teacher. See Willis and Schubert (1991), for example, on how powerful the arts have been in influencing nonart educators' conceptions of

curriculum and teaching and their current practice as curriculum professors and/or teacher educators.

I would choose this orientation also on the basis of what seemed salient to me in my reviews of others' research and the Center studies conducted in real places with real people. For example, the arts and arts teachers are isolated and marginalized in most institutional contexts, and the arts as any kind of compelling *aesthetic* experience seems alien to most educators. So, I would choose an expressive/pragmatic aesthetics to anchor my proposal rather than an objective or mimetic orientation. I would see aesthetics of this kind as the hub of an art or music education program rather than more narrow, formalist views of aesthetics (formal analysis of art objects or "great works" only).

I would want art/music experiences to be personally and socially moving, quite memorable and evocative--if not provocative and unnerving; that is, if people's minds and hearts are to change, or if educators are to see the potential of the arts differently than they have for 200 years in public schools. I would choose art exemplars, content, and experiences that would immerse people in diverse art forms and activities with an aim toward intense biographical reflection, cultural analysis, social critique, and personal and community action. I would take note of Efland's (1992) warning that aesthetics cannot be separated from social criticism if the arts are to be of educative value. Thus, my values also are informed by my personal experiences and place in an institutional vacuum where experiences in the arts are nil for teachers in our teacher education programs. When an administrator tells me that the arts are "not enduring subjects" after I request attention be given to "aesthetic ways of knowing" along with other forms of disciplinary knowledge we are promoting in our programs, I take such an uneducated response from a teacher educator quite personally and politically.

Unfortunately, my "What if?" sketch has not had the luxury of much conversation, scrutiny, or debate with many colleagues. One art educator suggested that it was wrongheaded for an art or music teacher education program to focus primarily on aesthetics. I replied that there are many different aesthetic theories or orientations, not just one. Another colleague enthusiastically suggested that an art teacher education program could be centered powerfully on art history alone and the study of art exemplars in multiple comparative contexts. Yet another suggested that arts education should begin with students' local knowledge and attend to the arts in all their popular forms. So, the conversation begins, and this is where developing a shared vision must begin if there is any hope for change in teacher education and K-12 arts education.

In sum, we can never nail down "the knowledge base" once and for all in any discipline or field nor should we universally prescribe what should be taught and learned in and across all settings in the arts. Rather, we should energetically try to repair the worst damage already done: ignorance, misdirection, silencing, and neglect in our teacher education programs where arts illiteracy begins its vicious cycle. If we have learned anything from research on reform in education it is that universal prescription is not only myopic but often prematurely determined, ill conceived, and foolhardy. You cannot mandate what matters (Fullan, 1991, 1993). Usually, such an approach to reform is miseducative for some poor souls and meets a quick demise with nary a ripple. This is because different needs, constraints, and resources present themselves in different educational contexts and communities. We would do better to engage in local conversations and begin building small communities of diverse voices that ask "What if?" If *arts* educators have no vision, then what hope is there for the rest of us?

Reforming art and music teacher education will be difficult because the kind of changes needed, as suggested by the research (or absence of such) will require complex, *systemic* change in local places. It will require far more than asking K-12 teachers to change their beliefs and practices or blaming them (the victims) for what we inherently are responsible for helping them learn. Therefore, complaining about constraints and actually trying to address these will require very different responses from us. The latter will require much dialogue with virtual strangers, new alliances, difficult negotiations, a critical look at ourselves and our programs, conversations about what we want to be and do, and comprehensive novel responses that no one person could possibly muster alone.

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